



·(1) Publication number:

0 429 802 A3

(12)

## **EUROPEAN PATENT APPLICATION**

(21) Application number: 90119126.2

(5) Int. Cl.5: **D04B** 21/04, A61F 13/15

② Date of filing: 05.10.90

Priority: 30.11.89 US 444546

Date of publication of application: 05.06.91 Bulletin 91/23

Designated Contracting States:
AT BE CH DE DK ES FR GB GR IT LI LU NL SE

Date of deferred publication of the search report: 01.07.92 Bulletin 92/27 Applicant: GUILFORD MILLS, INC. P.O. Box U-4 Greensbor, NC 27402(US)

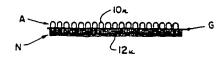
Inventor: Byles, Michael Noel 806 Chestnut Drive High Point, NC 27260(US)

Representative: Wilhelm & Dauster Patentanwälte European Patent Attorneys Hospitalstrasse 8 W-7000 Stuttgart 1(DE)

(9) Textile fabric with opposed absorbent and non-absorbent layers and method of fabricating same.

(57) An integrally fabricated textile fabric has a relatively thick, dense liquid retaining absorbent pile layer of hydrophilic yarns and a non-absorbent napped layer of hydrophobic yarns at opposite faces of the fabric integrated with an intermediate ground yarn structure. The napped hydrophobic yarn layer serves to wick liquid to the absorbent hydrophilic yarn layer while resisting return flow leakage. The fabric is preferably fabricated on a warp knitting machine wherein a set of hydrophilic yarns are warp knitted by the bottom machine guide bar in overfed needle loops at the technical face of the fabric, a set of hydrophobic yarns are warp knitted on the top machine guide bar in needle loops and extended nappable underlaps at the technical back of the fabric, and two sets of ground yarns are warp knitted by a respective pair of middle guide bars intermediate the fabric faces.

FIG. 2



ð

D	DOCUMENTS CONSIDERED TO BE RELEVANT			EP 90119126.2	
Category	Citation of document with i	ndication, where appropriate, ssages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 5)	
x	<u>JP - A - 60-1</u> (TOYO KOGYO) * Totality		1	D 04 B 21/04 A 61 F 13/15	
A	<u>US - A - 4 63</u> (GAJJAR) * Column 2	8 648 , lines 29-55 *	1,3,6		
A	<u>US - A - 3 79</u> (MEYER) * Claim 1	1 178 * 	1		
				TECHNICAL FIELDS SEARCHED (Int. CL5)	
		·		D 04 B 21/00 A 61 F 13/00 D 04 B 23/00	
				·	
. 1	The present search report has b	een drawn up for all claims			
J	Place of search	Date of completion of the search		Examiner	
VIENNA		05-05-1992	1992 HUBER		
CATEGORY OF CITED DOCUMENTS  X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background		E : earlier palen after the filig other D : document cit L : document cit	T: theory or principle underlying the Invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons		